





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 GAAGGCACAGCGGAGCGCAGAGTGAGAACTCCAGCGCGGAGGCGCCGGGCAGCGACCCCTGCAGCGCGGACCCGCGCCCGCTGGCC -1
 ATGCCTGCGCTCTGGCTGAGCTGCTACCTCTGCTTCTCGCTCCTCTGCCCCAGCCCCGGGCCACCTCCGGGAGGGAAGTCTGTGATTGC 90
 M P A L W L S C Y L C F S L L L P A A  A T S G R  E V C D C 30
 Dom V
 AACGGGAAGTCCAGGCAATGCATCTTTGACCAGGAACCTCACAAACAGACAGGAAATGGATTCCGCTGCCTCAACTGCAATGACAACACT 180
 N G K S R Q C I F D Q E L H K Q T G N G F R C L N C N D N T 60
 GATGGCATCCACTGCGAGAGGTGCAAGGCAGGATTTTACCGACAGAGAGAAAGGGACCGCTGTTTACCCTGCAATTGTAACCTCTAAAGGT 270
 D G I H C E R C K A G F Y R Q R E R D R C L P C N C N S K G 90
 TCTCTTAGCGCTCGATGTGACAACTCTGGACGGTGCAGCTGTAAGCCAGGTGTGACAGGAGACAGGTGTGACCGATGTCTGCCCCGCTTC 360
 S L S A R C D N S G R C S C K P G V T G D R C D R C L P G F 120
 CACACACTCACTGATGTGGGTGCGCCCAAGACCAAAGGCTGTAGACTCCAAGTGTGACTGTGACCCAGCTGGCATCTCAGGGCCCTGT 450
 H T L T D A G C A Q D Q R L L D S K C D C D P A G I S G P C 150
 GACTCAGGCGCTGTGTCTGCAAGCCGGCTGTCACTGGAGAGCGCTGTGATAGGTGTGACAGGTTACTATCACTGGATGGGGGAAAC 540
 D S G R C V C K P A V T G E R C D R C R P G Y Y H L D G G N 180
 CCTCAGGGCTGTACCCAGTGTCTTTGCTATGGGCATTCCGCCAGCTGCCACAGCTCTGGGGACTACAGTGTCCATAAAATCATCTCTGCC 630
 P Q G C T Q C F C Y G H S A  S C H S S G D Y S V H K I I S A 210
 dom. IV
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 S S A R R S D P V Y F V A P A K F L G N Q Q V S Y G Q S L S 270
 TTTGACTACCGTGTGGATAGGGGAGGCAGACACCCATCTGCCATGACGTGATCCTGGAAGGTGCTGGTCTACGGATCAGAGCTCCCTTG 900
 F D Y R V D R G G R H P S A H D V I L E G A G L R I T A P L 300
 ATGCCACTTAGCAAGACACTGCCTTGTGGGATCACCAAGACTTACACATTAGATTAAATGAACATCCAAGCAGTAATTGGAGCCCCCAG 990
 M P L S K T L P C G I T K T Y T F R L N E H P S S N W S P Q 330
 CTAAGTTACTTTGAGTATCGGAGGTTACTGCGGAACCTCACAGCCCTGCGGATCCGAGCTACCTACGGAGAATACAGTACTGGGTACATT 1080
 L S Y F E Y R R L L R N L T A L R I R A T Y G E Y S T G Y I 360
 GACAACGTGACCTTGATTTTCAGCCCGCCCGTTTCTGGAGCCCCAGCGCCCTGGGTGGAACAATGTGTATGCCCTGTTGGCTACAAGGGG 1170
 D N V T L I S A R P V S G A P A P W V E  C V C P V G Y K G 390
 Dom. III
 CAGTTCTGCCAGGATTGTGCTTCCGGCTACAAAAGAGATTACGCCAGACTGGGACCTTTTGGCACCTGTATTCCATGTAAGTCCAAGGG 1260
 Q F C Q D C A S G Y K R D S A R L G P F G T C I P C N C Q G 420
 GGAGGGCCTGCGATCCAGACACAGGAGACTGTTACTCAGGGGATGAGAACCCTGCATCCCTGAGTGTGCTGACTGCCCCATTGGTTTC 1350
 G G A C D P D T G D C Y S G D E N P D I P E C A D C P I G F 450
 TACAACGATCCACAAGACCCCGCAGCTGCAAGCCGTGCCCCTGTGCAATGGGTTAGCTGCTCCGTGATGCCTGAGACAGAGGAGGTG 1440
 Y N D P Q D P R S C K P C P C R N G F S C S V M P E T E E V 480
 GTGTGCAATAACTGCCCCAGGGTGTCACTGGTGGCCGCTGTGAGCTCTGTGCTGATGGCTATTTTGGGGACCCCTTCGGGGAACGTGGC 1530
 V C N N C P Q G V T G A R C E L C A D G Y F G D P F G E R G 510
 CCAGTGAGGCTTGTGAGCCTGTGAGTGAACAACAACGTGGACCTAGTGCCTCCGGGAACGTGTGACCGCCTGACAGGCAGGTGTCTG 1620
 P V R P C Q P C Q C N N N V D P S A S G N C D R L T G R C L 540
 AAGTGCATCCACAACACAGCTGGGGTCCACTGTGACCAAGCAGGCTACTATGGGGACCCGTTGGCTCCCAATCCAGCAGACAAG 1710
 K C I H N T A G V H C D Q C K A G Y Y G D P L A P N P A D K 570
 TGTGAGCTTGCAACTGCAACCCAGTGGGCTCGGAGCCTGTGGAGTGTGCAAGTGATGGCAGCTGTGTTTGCAAGCCAGGCTTTGGTGGC 1800
 C R A C N C N P V G S E P V E C R S D G S C V C K P G F G G 600

FIG. 3A

CTCAGCTGTGAGCATGCGGCACTGACCAGCTGTCCAGCTTGCTATAATCAAGTGAAGGTTGATGGATCAGTTTATGCAGCAGCTCCAG 1890
 L S C E H A A L T S C P A C Y N Q V K V Q M D Q F M Q Q L Q 630
 ATCCTGGAGGCCCTGATTTCTGAAGGCTCAGGGTGGAGCAGTACCCAACGCAGAGCTGGAAGGCAGGATGCAGCAGGCTGAGCAGGCCCTT 1980
 I L E A L I S K A Q G G A V P N A E L E G R M Q Q A E Q A L 660
 CCGGACATTCTGAGAGAAGCCCAGATTTCAAGATGCTGTTAGATCCTTCAATCTCCGGGTGGCCAAGGCAAGGACTCAAGAGAATAGC 2070
 R D I L R E A Q I S Q D A V R S F N L R V A K A R T Q E N S 690
 TACCGGGACCGCTGGATGACCTCAAGATGACTGTGAAAGAGTTCCGGGCCCTGGGCAGTCAGTATCAGAACCAAGTTGAGGATACTCGC 2160
 Y R D R L D D L K M T V E R V R A L G S Q Y Q N Q V Q D T R 730
 AGGCTCATCACTCAGATGCGCCTGAGCCTGGAGGAAAGTGAGGCTTCCCTGCAAAACACCAACATTCCTCCTTCAGAGCACTACGTGGGG 2250
 R L I T Q M R L S L E E S E A S L Q N T N I P P S E H Y V G 750
 CCAATGGCTTTAAAGTCTGGCTCAGGAGGCCACGAGATTGGCAGACAGCCATGTTGAGTCAGCCAGTAACATGGAGCAACTGGCAAAG 2340
 P N G F K S L A Q E A T R L A D S H V Q S A S N M E Q L A K 780
 GAAACCCAGGAGTATTCCAAAGAGCTGATGTCTACTGGTGCAGGCTCTGCAGGAAGGAGGCGGAAGCGGCAGCCTGGACGGAGCCGTG 2430
 E T Q E Y S K E L M S L V R E A L Q E G G G S G S L D G A V 810
 GTGCAAAGGCTTGTGGAAAATTGCAGAAAATAAATCTCTGGCCAGGAGTTGTGAGGGAGGCCACGCAAACCGACATGGAAGCAGAT 2520
 V Q R L V G K L Q K T K S L A Q E L S R E A T Q T D M E A D 840
 AGGTCTTATCAGCATAGTCTCCACCTTCTCAATCCGTGTCTCAGATTGAGGAGTCAATGATCAGTCTTGCAGGTAGAAGCGAAGAGG 2610
 R S Y Q H S L H L L N S V S Q I Q G V N D Q S L Q V E A K R 870
 CTCAGACAAAAAGCTGATTCTCTCTCAAACCGTGTGACTAAGCATATGGATGAGTTCAAGCAGCTGCAAAGCAATCTGGGAACTGGGAA 2700
 L R Q K A D S L S N R V T K H M D E F K H V Q S N L G N W E 900
 GAAGAAACCCGGCAGCTCTTACAGAATGGAAGAATGGGAGACAGACATCAGATCAGCTGCTTCCCGTGCCAACTTGCTAAAAGCAGA 2790
 E E T R Q L L Q N G K N G R Q T S D Q L L S R A N L A K S R 930
 GCCCAAGAAGCACTAAGTATGGGCAATGCCACTTTTTATGAAGTTGAGAATCTTAAAGAATCTCAGAGAGTTGACCTGCAGGTTGGA 2880
 A Q E A L S M G N A T F Y E V E N I L K N L R E F D L Q V G 960
 GATAAAGAGCAGAAGCTGAAGAGGCCATGAAGAGACTCTCCTACATCAGCCAGAAGGTTGACAGGTGCCAGTGACAAGCAAGCAAGCA 2970
 D K R A E A E E A M K R L S Y I S Q K V A G A S D K T K Q A 990
 GAAGCAGCCCTGGGCGAGTGTCTGCTGCCGACGCCAGAGGGCAAAGAATGCAGCCAGGGAGGCCCTGGAGATCTCTGGCAAGATAGAACAG 3060
 E A A L G S A A A D A Q R A K N A A R E A L E I S G K I E Q 1020
 GAGATAGGAGGTCTGAACTTGAAGCCAATGTGACAGCAGATGGAGCCTTGGCCATGGAGAAGGGACTGGCCACTCTGAAAAGTGAGATG 3150
 E I G G L N L E A N V T A D G A L A M E K G L A T L K S E M 1050
 AGAGAAGTGAAGGAGAGCTGTCAAGGAAGGAGCAGGAGTTTGACATGGATATGGACGAGTGAGATGGTAATTGCAGAGGCCCAAAGA 3240
 R E V E G E L S R K E Q E F D M D M D A V Q M V I A E A Q R 1080
 GTTGAAAACAGAGCCAAGAATGCTGGAGTTACGATCCAAGACACACTCAACACATTGGATGGCATCCTACACCTAATAGACCAGCCTGGC 3330
 V E N R A K N A G V T I Q D T L N T L D G I L H L I D Q P G 1110
 AGTGTGGATGAAGAGAGGCTGATCTTACTGGAGCAGAAGCTTTTCCGAGCCAAAGACTCAGATCAACAGCCAGCTACGGCCCTTGATGTCA 3420
 S V D E E R L I L L E Q K L F R A K T Q I N S Q L R P L M S 1140
 GAGCTGGAAGAGAGGGCACATCGGCAGAGGGCCACCTCCGTTTCTGGAGACTAGCATAGATGGGATTCTGGCTGATGTGAAGAACCTG 3510
 E L E E R A H R Q K G H L R F L E T S I D G I L A D V K N L 1170
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 E N I R D N L P P G C Y N T Q A L E Q Q * 1190
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 atgtctttattg 3789-3'

FIG. 3B

horse	1	MPALWLSYLCFSLLLPAARATSGREVCDNCNGSKSRQCIFDQELHKQTGNGFRCLNCNDNTDGIHCERCKAGFYRQRERDRCLPCNCNSKGSLSARCDNSG
man	1	MPALWLGCCCLFSLLLPAARATSRREVCDNCNGSKSRQCIFDRELHRTGTGNGFRCLNCNDNTDGIHCECKNGFYRHRERDRCLPCNCNSKGSLSARCDNSG
mouse	1	MPALWLSCCLCGVALLLPASQATSRREVCDNCNGSKSRQCIFDQELHRQAGSGFRCLNCNDNTAGVHCERSREGFYQHQSRSRCLPCNCNSKGSLSAGCDNSG
horse	101	RCSCKPGVTGDRCDRCLPGFHFTLTDAGCAQDQRLDLSKDCDPAAGISGPCDSGRVCVKCPAVTGERCDRCRPGYYHLDGGNPQGCQCFYGHSAASCHSSG
man	101	RCSCKPGVTGARCDRCLPGFHMFLTADAGCTQDQRLDLSKDCDPAAGIAPCDAGRCVCKPAVTGERCDRCRSGYNNLDGGNPEGCTQCFCYGHSAASCRSSA
mouse	101	QCRCKPGVTGQRCDQCQCPGFHMLTDAGCTRQDQRLDLSKDCDPAAGISGPCDSGRVCVKCPAVTGERCDRCRPRDYLHLDNRANPEGCTQCFCYGHSAASCHASA
horse	201	DYSVHKIISAFHQDVGWKAQVRNGSPAKLQWSQRHRDIFSSARRSDPVYFVAPAKFLGNQVSYGQSLSFDYRVRDRGGRHPSAHDVILEGAGLRITAPL
man	201	EYSVHKITSTFHQDVGWKAQVRNGSPAKLQWSQRHQDVSSAQRLLDPVYFVAPAKFLGNQVSYGQSLSFDYRVRDRGGRHPSAHDVILEGAGLRITAPL
mouse	201	DFSVHKITSTFSQDVGWKAQVRNGAPAKLHWSQRHRDVSSARRSDPVYFVAPAKFLGNQVSYGQSLSFDYRVRDRGGRPSAYDVILEGAGLRITAPL
horse	301	MPLSKTLP CGITKTYTFRLNEHPSSNWSPLSYFEYRRLRLNLTA LR-IRATYGEYSTGYIDNVTLISARPVSGAPAPWVEQCVPVGYKGQFCQDCASG
man	301	MPLGKTLPCGLTKTYTFRLNEHPSSNWSPLSYFEYRRLRLNLTA LR-IRATYGEYSTGYIDNVTLISARPVSGAPAPWVEQCICPVGYKGQFCQDCASG
mouse	301	MAPGKTLPCGITKTYTFRLNEHPSSHWSPLSYFEYRRLRLNLTA LLMIRATYGEYSTGYIDNVTLVSARPVLGAPAPWVERCVCLLGYKGQFCQECASG
horse	400	YKRDSARLGPFGTIPCNCQCGGACDPDTCDCYSGDENPDIECADCPIGFYNDPQDRSCKPCPCRNFGFSCSVMPETEEVVCNNCPQGVGTGARCELCA D
man	400	YKRDSARLGPFGTIPCNCQCGGACDPDTCDCYSGDENPDI-ECADCPIGFYNDPDPDRSCKPCPCRNFGFSCSVMPETEEVVCNNCPPGVGTGARCELCA D
mouse	401	YKRDSARLGAFGACVPCNCQCGGACDPDTCDCYSGDENPDI-ECADCPIGFYNDPDPDRSCKPCPCRNFGFSCSVMPETEEVVCNNCPPGVGTGARCELCA D
horse	500	GYFGDPFGERGVP RCPQCQCNNNVDPASGNCNDRLTGRCLKCIHNTAGVHCDQCKAGYYGDPPLA PNPADKCRACNCPNVGSEPVECEKSDGSCVCCKPGFG
man	499	GYFGDPFGEHGPVRPCQCQCNNNVDPASGNCNDRLTGRCLKCIHNTAGIYCDQCKAGYFGDPLA PNPADKCRACNCPNVGSEPVECEKSDGSCVCCKPGFG
mouse	500	GFFGDPFGEHGPVRPCQCQCNNNVDPASGNCNDRLTGRCLKCIYNTAGVYCDQCKAGYFGDPLA PNPADKCRACNCPNVGSEPVECEKSDGSCVCCKPGFG
horse	600	GLSCEHAALTSCPACYNQVQVMDQFMQQLQILEALISKAQGG---AVPNAELEGMRQQAQALRDILREAIQSDQAVRSFNLRVAKARTQENSRYDRDL D
man	599	GPNCHEGAFS-CPACYNQVQI QMDQFMQQLQRMELISKAQGGDG-VVPDTELEGMRQQAQALQDILDAQISEGASRLGLQAKVRSQENSYSQSKRLD
mouse	600	AFNCDHAALTSCPACYNQVQI QMDQFTQQLQSLQALVSKAQGGGGGTVPVQLEGRIEQAQALQDILGEAQISEGAMRAVAVRLAKARSQENDYKTRLD
horse	697	DLKMTVERVRALGSQYQNVQDTRRLITQMRSLSESEASLQNTNIPPSEHYVGPNGFKSLAQEA TRLDASHVQSASNNMEQLAKETQEYSKELMSLVREA
man	697	DLKMTVERVRALGSQYQNVVRDTHRLITQMRSLSESEASLQNTIPASDHYVGPNGFKSLAQEA TRLAESHVESASNNMEQLTRETEDYSKQALSVRKA
mouse	700	DLKMTAERIRALGSQHQN RVQDTSRLISQMRSLAGSEALLENTNIHSSEHYVGPNDPFKSLAQEA TRKADSHAESANAMKQLARETEDYSKQALSARKL
horse	797	LQE---GGSGSLDGA VVQRLVGKQLQTKSLAQELSREATQTDMEADRSYQHSLLHLLNSVSQIQGVNDQSLQVEAKR-LRQKADSLSNRVTKHMDKFKHVQ
man	797	LHEGVGSGSPDGA VVQGLVEKLEKTKSLAQQLTREATQAEIEADRSYQHSLLHLLNSVSRLQGVSDQSFQVEEA KRIKQKADSLTLVTRHMDKFKRTQ
mouse	800	LSG---GGSGSGSWDSSVVQGLMGKLEKTKSLSQLSLEGTAQIEADRSYQHSLLHLLNSVSQIQGVSDLSFQVEAKR-IRQKADSLSNLVTRQITDAFTRVR
horse	894	SNLGNWEEETRQLLQNGKNGRQTSDDLSTRANLAKSRAQEAALSMGNATFYEVENILKNLREFDLQVGDKRAEAEAMKRLSVISQKVAGASDKTKQAEAA
man	897	KNLGNWKEEAQQLQNGKSGREKSDQLSTRANLAKSRAQEAALSMGNATFYEVESEILKNLREFDLQVGNRKA EAEAMKRLSVISQKVSDASDKTQQAERA
mouse	897	NNLGNWEKETRQLLQTKDRRQTSDDLSTRANLAKNRAQEAALSMGNATFYEVENILKNLREFDLQVEDRKA EAEAMKRLSSISQKVADASDKTQQAETA
horse	994	LGSAAADAQRAKNAAREALISGKIEIGGLNLEANVTADGALAMEKGLATLKSEMREVEGELSKEQEFMDMDA VQMVIAEAQRVENRAKNAGVTIQ
man	997	LGSAAADAQRAKNGAGEALEISSEIEIGSLNLEANVTADGALAMEKGLASLKSEMREVEGELERKELEFDTNMDA VQMVITEAQKVDTRAKNAGVTIQ
mouse	997	LGSATADTQRAKNAAREALISSEIEIGSLNLEANVTADGALAMEKGTATLKSEMREMI-ELARKELEFDTKDVTQLVITEAQADARATSAGVTIQ
horse	1094	DTLNTLDGILHLIDQPGSVDEERLILLEQKLFRAKTQINSOLRPLMSELEERAHROKHRLFLFLETSIDGILADVKNLENIRDNLP PGCYNTQALEEQ
man	1097	DTLNTLDGILLHMDQPLSVDEEGLVLEQKLSRAKTQINSOLRPLMSELEERARQQRGHLHLLFLETSIDGILADVKNLENIRDNLP PGCYNTQALEEQ
mouse	1096	DTLNTLDGILHLIDQPGSVDEEGMMLLEQGLFQAKTQINSRLRPLMSDLEERVRRQRNHLHLLFLETSIDGILADVKNLENIRDNLP PGCYNTQALEEQ

FIG. 4

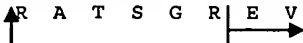
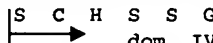
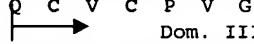
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 GAAGGCACAGCGGAGCGCAGAGTGAGAACTCCAGCGGCGAGGCGCCGGGCAGCGACCCCTGCAGCGGGGACCGCGCCCGCCTGGCC -1
 ATGCCTGCGCTCTGGCTGAGCTGCTACCTCTGCTTCTCGCTCCTCTGCCCCAGCCCCGGGCCACCTCCGGGAGGGAAGTCTGTGATTGC 90
 M P A L W L S C Y L C F S L L L P A A  R A T S G R E V C D C 30
 AACGGGAAGTCCAGGCAATGCATCTTTGACCAGGAATTCACAAACAGACAGGAAATGGATTCCGCTGCCTCAACTGCAATGACAACACT 180
 N G K S R Q C I F D Q E L H K Q T G N G F R C L N C N D N T 60
 GATGGCATCCACTGCGAGAGGTGCAAGGCAGGATTTTACCGACAGAGAGAAAGGGACCGCTGTTTACCCTGCAATTGTAACCTCTAAAGGT 270
 D G I H C E R C K A G F Y R Q R E R D R C L P C N C N S K G 90
 TCTCTTAGCGCTCGATGTGACAACTCTGGACGGTGCAGCTGTAAAGCCAGGTGTGACAGGAGACAGGTGTGACCGATGTCTGCCCCGGCTTC 360
 S L S A R C D N S G R C S C K P G V T G D R C D R C L P G F 120
 CACACACTCACTGATGCTGGGTGCGCCCAAGACCAAAGGCTGCTAGACTCCAAGTGTGACTGTGACCCAGCTGGCATCTCAGGGCCCTGT 450
 H T L T D A G C A Q D Q R L L D S K C D C D P A G I S G P C 150
 GACTCAGGCCGCTGTGTCTGCAAGCCGGCTGTCACTGGAGAGCGCTGTGATAGGTGTGACCCAGGTACTATCACCTGGATGGGGGAAAC 540
 D S G R C V C K P A V T G E R C D R C R P G Y Y H L D G G N 180
 CCTCAGGGCTGTACCCAGTGTCTTTTGCTATGGGCATTCCGCCAGCTGCCACAGCTCTGGGGACTACAGTGTCCATAAAATCATCTCTGCC 630
 P Q G C T Q C F C Y G H S A  S C H S S G D Y S V H K I I S A 210
 TTCCATCAAGATGTTGATGGCTGGAAGGCTGTCCAAAGAAACGGGTCTCCTGCAAAGCTCCAGTGGTCACAGCGCCATCGGGATATATTT 720
 F H Q D V D G W K A V Q R N G S P A K L Q W S Q R H R D I F 240
 AGCTCAGCAGCAGATCAGACCCTGTCTATTTTGTAGCTCCTGCCAAATTTCTTGGGAATCAACAGGTGAGCTACGGGCAAAGCCTATCT 810
 S S A R R S D P V Y F V A P A K F L G N Q Q V S Y G Q S L S 270
 TTTGACTACCGTGTGGATAGGGGAGGCAGACACCCATCTGCCCATGACGTGATCCTGGAAGGTGCTGGTCTACGGATCACAGCTCCCTTG 900
 F D Y R V D R G G R H P S A H D V I L E G A G L R I T A P L 300
 ATGCCACTTAGCAAGACACTGCCTTGTGGGATCACCAAGACTTACACATTAGATTAAATGAACATCCAAGCAGTAATGGAGCCCCCAG 990
 M P L S K T L P C G I T K T Y T F R L N E H P S S N W S P Q 330
 CTAAGTTACTTTGAGTATCGGAGGTTACTGCGGAACCTCACAGCCCTGCGGATCCGAGCTACCTACGGAGAATACAGTACTGGGTACATT 1080
 L S Y F E Y R R L L R N L T A L R I R A T Y G E Y S T G Y I 360
 GACAACGTGACCTTGATTTCAGCCCCCGCTTCTGGAGCCCCAGCGCCCTGGGTGAACAATGTGTATGCCCTGTTGGCTACAAGGGG 1170
 D N V T L I S A R P V S G A P A P W V E  C V C P V G Y K G 390
 CAGTTCTGCCAGGATTGTGCTTCCGGCTACAAAAGAGATTACGCCAGACTGGGACCTTTTGGCACCTGTATTCCATGTAAGTCCAAGGG 1260
 Q F C Q D C A S G Y K R D S A R L G P F G T C I P C N C Q G 420
 GGAGGGCCTGCGATCCAGACACAGGAGACTGTTACTCAGGGGATGAGAACCCTGACATCCCTGAGTGTGCTGACTGCCCCATTGGTTTC 1350
 G G A C D P D T G D C Y S G D E N P D I P E C A D C P I G F 450
 TACAACGATCCACAAGACCCCCGAGCTGCAAGCCGTGCCCCGTGCGCAATGGGTTCAGCTGCTCCGTGATGCCTGAGACAGAGGAGGTG 1440
 Y N D P Q D P R S C K P C P C R N G F S C S V M P E T E E V 480
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 V C N N C P Q G V T G A R C E L C A D G Y F G D P F G E R G 510
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 P V R P C Q P C Q C N N N V D P S A S G N C D R L T G R C L 540
 AAGTGCATCCACAACACAGCTGGGGTCCACTGTGACCAGTGCAAAGCAGGCTACTATGGGGACCCGTGGCTCCCAATCCAGCAGACAAG 1710
 K C I H N T A G V H C D Q C K A G Y Y G D P L A P N P A D K 570
 TGTGAGCTTGCAACTGCAACCCAGTGGGCTCGGAGCCTGTGGAGTGTGCAAGTGTGAGCAGCTGTGTTTGCAAGCCAGGCTTTGGTGGC 1800
 C R A C N C N P V G S E P V E C R S D G S C V C K P G F G G 600

FIG. 3A

CTCAGCTGTGAGCATGCGGCACTGACCAGCTGTCCAGCTTGCTATAATCAAGTGAAGGTTTCAGATGGATCAGTTTATGCAGCAGCTCCAG 1890
 L S C E H A A L T S C P A C Y N Q V K V Q M D Q F M Q Q L Q 630
 Dom. I/II
 ATCCTGGAGGCCCTGATTTTGAAGGCTCAGGTTGGAGCAGTACCCAACGCAGAGCTGGAAGGCAGGATGCAGCAGGCTGAGCAGGCCCTT 1980
 I L E A L I S K A Q G G A V P N A E L E G R M Q Q A E Q A L 660
 CGGGACATTCTGAGAGAAGCCCAGATTTCACAAGATGCTGTTAGATCCTTCAATCTCCGGGTGGCCAAGGCAAGGACTCAAGAGAATAGC 2070
 R D I L R E A Q I S Q D A V R S F N L R V A K A R T Q E N S 690
 TACCGGGACCGCCTGGATGACCTCAAGATGACTGTGGAAAGAGTTCCGGGCCCTGGGCAGTCAGTATCAGAACCAAGTTTCAGGATACTCGC 2160
 Y R D R L D D L K M T V E R V R A L G S Q Y Q N Q V Q D T R 730
 AGGCTCATCACTCAGATGCGCCTGAGCCTGGAGGAAAGTGAGGCTTCCCTGCAAAACACCAACATTCTCTTCAGAGCACTACGTGGGG 2250
 R L I T Q M R L S L E E S E A S L Q N T N I P P S E H Y V G 750
 CCAAATGGCTTTAAAGTCTGGCTCAGGAGGCCACGAGATTGGCAGACAGCCATGTTTCAGTCAGCCAGTAACATGGAGCAACTGGCAAAG 2340
 P N G F K S L A Q E A T R L A D S H V Q S A S N M E Q L A K 780
 GAAACCCAGGAGTATTCCAAGAGCTGATGTCACTGGTGCAGGAGGCTCTGCAGGAAGGAGGCGGAAGCGGCAGCCTGGACGGAGCCGTG 2430
 E T Q E Y S K E L M S L V R E A L Q E G G G S G S L D G A V 810
 GTGCAAAGGCTTGTGGGAAATTCAGAAAATAAATCTCTGGCCCAGGAGTTGTGAGGGAGGCCACGCAAACCGACATGGAAGCAGAT 2520
 V Q R L V G K L Q K T K S L A Q E L S R E A T Q T D M E A D 840
 AGGTCTTATCAGCATAGTCTCCACCTTCTCAATTCGGTGTCTCAGATTACGGGAGTCAATGATCAGTCTTGCAGGTAGAAGCGAAGAGG 2610
 R S Y Q H S L H L L N S V S Q I Q G V N D Q S L Q V E A K R 870
 CTCAGACAAAAGCTGATTCTCTCTCAAACCGTGTGACTAAGCATATGGATGAGTTCAAGCACGTGCAAAGCAATCTGGGAAACTGGGAA 2700
 L R Q K A D S L S N R V T K H M D E F K H V Q S N L G N W E 900
 GAAGAAACCCGCGCAGCTCTTACAGAATGGAAGAATGGGAGACAGACATCAGATCAGCTGCTTTCCCGTGCCAACCTTGCTAAAAGCAGA 2790
 E E T R Q L L Q N G K N G R Q T S D Q L L S R A N L A K S R 930
 GCCCAAGAAGCACTAAGTATGGGCAATGCCACTTTTTATGAAGTTGAGAACATCTTAAAGAATCTCAGAGAGTTTGACCTGCAGGTTGGA 2880
 A Q E A L S M G N A T F Y E V E N I L K N L R E F D L Q V G 960
 GATAAAGAGCAGAAGCTGAAGAGGCCATGAAGAGACTCTCCTACATCAGCCAGAAGGTTGCAGGTGCCAGTGACAAGACGAAGCAAGCA 2970
 D K R A E A E E A M K R L S Y I S Q K V A G A S D K T K Q A 990
 GAAGCAGCCCTGGGCAGTGCTGCTGCCGACGCCAGAGGGCAAAGAATGCAGCCAGGAGGCCCTGGAGATCTCTGGCAAGATAGAACAG 3060
 E A A L G S A A A D A Q R A K N A A R E A L E I S G K I E Q 1020
 GAGATAGGAGGTCTGAACCTGGAAGCCAATGTGACAGCAGATGGAGCCTTGCCATGGAGAAGGGACTGGCCACTCTGAAAAGTGAGATG 3150
 E I G G L N L E A N V T A D G A L A M E K G L A T L K S E M 1050
 AGAGAAGTGGAAGGAGAGCTGTCAAGGAAGGAGCAGGAGTTTGACATGGATATGGACGCAGTGCAGATGGTAATTGCAGAGGCCAAAGA 3240
 R E V E G E L S R K E Q E F D M D M D A V Q M V I A E A Q R 1080
 GTTGA AACAGAGCCAAGAATGCTGGAGTTACGATCCAAGACACACTCAACACATTGGATGGCATCCTACACCTAATAGACCAGCCTGGC 3330
 V E N R A K N A G V T I Q D T L N T L D G I L H L I D Q P G 1110
 AGTGTGGATGAAGAGAGGCTGATCTTACTGGAGCAGAAGCTTTCCGAGCCAAGACTCAGATCAACAGCCAGCTACGGCCCTTGATGTCA 3420
 S V D E E R L I L L E Q K L F R A K T Q I N S Q L R P L M S 1140
 GAGCTGGAAGAGAGGGCACATCGGCAGAAGGGCCACCTCCGTTTCTGGAGACTAGCATAGATGGGATTCTGGCTGATGTGAAGAACCTG 3510
 E L E E R A H R Q K G H L R F L E T S I D G I L A D V K N L 1170
 GAGAACATCAGGACAACCTGCCCCGGGCTGTACAATACCCAGGCTCTTGAGCAACAGtgagctgccttagagatttctcaaccaag 3600
 E N I R D N L P P G C Y N T Q A L E Q Q * 1190
 gttcttgggattcagacctagctgccttagagatttctcaaccaaggttcttgggattcagacctcagggtcaggagcccgatgcggg 3690
 tggggtgggatgggaatatttgaatattgtgaatgcgtgtgctcaggccccagtgaaacctgatcccatccctgagacctcggccagataa 3780
 atgtctttattg 3789-3'

FIG. 3B

horse	1	MPALWLSYLCFSLPAAARATSGREVCDNCNGSKSRQCIFDQELHKQTGNGFRCLNCNDNTDGIHCERCKAGFYRQRERDRCLPCNCNSKGSLSARCDNSG
man	1	MPALWLGCCCLFSLPAAARATSRREVCDNCNGSKSRQCIFDRELHROTGTGNGFRCLNCNDNTDGIHCECKNGFYRHRERDRCLPCNCNSKGSLSARCDNSG
mouse	1	MPALWLSCCLGVALLLPASQATSRREVCDNCNGSKSRQCIFDQELHRQAGSGFRCLNCNDNTAGVHCERSREGFYQHQSXSRLPCNCHSKGSLSAOCDNSG
horse	101	RCSCKPGVTGDRCDRCLPGFHTLTDAGCAQDQRLDLSKDCDDPAGISGPCDSGRVCVKPAVTGERCDRCRPGVYHLDGGNPQGQTCFCYGHSA SCHSSG
man	101	RCSCKPGVTGARCDRCLPGFHTLTDAGCTQDQRLDLSKDCDDPAGIAGPCDAGRVCVKPAVTGERCDRCRSGYNNLDGNGPEGCTQCFCYGHSA SCRSSA
mouse	101	QCRCKPGVTGQRCDQCQPGFHTLTDAGCTRDQGLDLSKDCDDPAGISGPCDSGRVCVKPAVTGERCDRCRPRDYHLDRA NPEGCTQCFCYGHSA SCHASA
horse	201	DYSVHKIISAFHQDVWGWAQVRNGSPAKLQWSQRHRDISSARRSDPVYFVAPAKFLGNQOVSYGQSLSFDRYRVDGRGRHPSAHDVILEGAGLRITAPL
man	201	EYSVHKITSTFHQDVWGWAQVRNGSPAKLQWSQRHQDVSSAQRLDPVYFVAPAKFLGNQOVSYGQSLSFDRYRVDGRGRHPSAHDVILEGAGLRITAPL
mouse	201	DFSVHKITSTFSQDVWGWAQVRNGAPAKLHWSQRHRDVFSSARRSDPVYFVAPAKFLGNQOVSYGQSLSFDRYRVDGRGRHPSAHDVILEGAGLRITAPL
horse	301	MPLSKTLPCGITKTYTFRLNEHPSSNWSPLSYFEYRRLRLNLTA LR-IRATYGEYSTGYIDNVTLISARVSGAPAPWVEQVCPVGYKGFQCDQCSAG
man	301	MPLGKTLPCGLTKTYTFRLNEHPSSNWSPLSYFEYRRLRLNLTA LR-IRATYGEYSTGYIDNVTLISARVSGAPAPWVEQCICPVGYKGFQCDQCSAG
mouse	301	MAPGKTLPCGITKTYTFRLNEHPSSNWSPLSYFEYRRLRLNLTA LLMIRATYGEYSTGYIDNVTLVSARPVLGAPAPWVERCVCLLYKYGQFCQECASG
horse	400	YKRDSARLGPFGTIPCNCQGGGACDPDTGDCYSGDENPDIPEDACDPIGFYNDPQDRSCKPCPCRNFGSCSVMPETEEVVCNNCPQGVGTGARCELCA D
man	400	YKRDSARLGPFGTIPCNCQGGGACDPDTGDCYSGDENPDI-ECADCPIGFYNDPHDPRSCKPCPCRNFGSCSVMPETEEVVCNNCPPGVGTGARCELCA D
mouse	401	YKRDSARLGAFGACVPCNCQGGGACDPDTGDCYSGDENPDI-ECADCPIGFYNDPHDPRSCKPCPCRNFGSCSVMPETEEVVCNNCPPGVGTGARCELCA D
horse	500	GYFGDPFGEHPVRPCQPCQCQNNNVDPASAGNCDRLTGRCLKCIHNTAGVHCDQCKAGYVYGDPLAPNADKCRACNCNPVGSEPVCECRSDGSCVCKPGFG
man	499	GYFGDPFGEHPVRPCQPCQCQNNNVDPASAGNCDRLTGRCLKCIHNTAGVHCDQCKAGYFGDPLAPNADKCRACNCNPVGSEPVCECRSDGTCVCKPGFG
mouse	500	GYFGDPFGEHPVRPCQPCQCQNNNVDPASAGNCDRLTGRCLKCIYNTAGVYCDQCKAGYFGDPLAPNADKCRACNCSPMGAEPGECRGDSCVCKPGFG
horse	600	GLSCEHAALTSCPACYNQVKVQMDQFMQQLQILEALISKAQGG---AVPNAELEGQMQAQEAQLRDILREAQISQDAVRSFNLRVAKARTQENSRYDRDL D
man	599	GPNCHEGAFS-CPACYNQVKIQMDQFMQQLQRMALISKAQGGDG-VVPDTELEGQMQAQEAQLQDILDAISEGASRLGLQAKVRSQENSYSQSRLD
mouse	600	AFNCDDHAALTSCPACYNQVKIQMDQFTQQLQSLQLEALVSKAQGGGGGTVPVQLEGRJEAQEAQLQDILGEAQISEGAMRAVAVRLAKARSEQNDYKTRLD
horse	697	DLKMTVERVRALGSQYQNVQVQDTRRLITQMRLSLESEASLQNTNIPPSEHYVGPNGFKSLAQEA TRLDASHVQASNNMEQLAKETQEYSKELMSLVREA
man	697	DLKMTVERVRALGSQYQNRVRDTHRLITQMRLSLESEASLQNTNIPASDHYVGPNGFKSLAQEA TRLAESHVESASNNMEQLTRETEDYSKQALSVRKA
mouse	700	DLKMTAERIRALGSQHQRVQDTSRLISQMRLSLAGSEALLENTNIHSEHYVGPNDFKSLAQEA TRKADSHAESANAMKQLARETEDYSKQALSRLKLL
horse	797	LQE---GGSGSLDGAVVQRLVGKLQKTKSLAQELSREATQTDMEADRSYQHSLLHLSVSIQGVNDQSLQVEAKR-LRQKADSLSNRVTKHMDFFKHVQ
man	797	LHEGVSGSGPDGAVVQGLVEKLEKTKSLAQQLTREATQAEIEADRSYQHSLLHLSVSRLLQGVSDQSFQVEAKRIKQKADSLTLVTRHMDFFKRTQ
mouse	800	LSG---GGSGSWDSSVVQGLMGKLEKTKSLSQLSLEGTDQADIEADRSYQHSLLHLSVSIQGVSDLSFQVEAKR-IRQKADSLSNLVTRQTDATFTRVR
horse	894	SNLGNWEBETRQLLQNGKNGRQTSQDQLSRANLAKSRAQEA LSMGNA TFYEVENILKNLREFDLQVGDKRAEAEAMKRLSYISQKVAGASDKTKQAEAA
man	897	KNLGNWKEEAQQLLQNGKSGREKSDQLSRANLAKSRAQEA LSMGNA TFYEVESEILKNLREFDLQVGNRKA EAEAMKRLSYISQKVSDASDKTKQAEERA
mouse	897	NNLGNWEKETRQLLQTKDRRQTSQDQLSRANLAKNRAQEA LSMGNA TFYEVENILKNLREFDLQVEDRKA EAEAMKRLSSISQKVADASDKTKQAEETA
horse	994	LGSAAADAQRAKNAAREALEISGKIEIGGLNLEANVTADGALAMEKGLATLTKSEMREVEGELSRKEQEFMDMDA VQMVIAEAQRVENRAKNAGVTIQ
man	997	LGSAAADAQRAKNGAGEALEISSEIEQIGSLNLEANVTADGALAMEKGLASLKSEMREVEGELERKELEFDTNMDA VQMVITEAQKVDTRAKNAGVTIQ
mouse	997	LGSATADTQRAKNAAREALEISSEIEIGSLNLEANVTADGALAMEKGTATLTKSEMREMI-ELARKELEFDTKDVTQLVITEAQQADARATSAGVTIQ
horse	1094	DTLNTLDGILHLIDQPGSVDEERLILLEQKLFRAKTQINSQRLPMLSELEERAHQRKGHLRFLITSIDGILADVKNLENIRDNLPFGCYNTQALEQQ
man	1097	DTLNTLDGILLHMDQPLSVDEEGLVLEQKLSRAKTQINSQRLPQMSLELEERARQQRGHLHLLTSDIGILADVKNLENIRDNLPFGCYNTQALEQQ
mouse	1096	DTLNTLDGILHLIDQPGSVDEEGMMLLEQGLFQAKTQINSRLRPLMSDLEERVRRQRNHLHLLTSDIGILADVKNLENIRDNLPFGCYNTQALEQQ

FIG. 4